Inventor Serial No. Dong

Filed

10/629,261 07/28/2003

Page

## COMPLETE LISTING OF ALL CLAIMS, WITH MARKINGS AND STATUS IDENTIFIERS

(Currently amended claims showing deletions by strikethrough or double brackets (e.g., [[4]]) and additions by underlining or double underlining)

1 (currently amended): A compound of formula (I),

 $(R^2R^3)-A^7-A^8-A^9-A^{10}-A^{11}-A^{12}-A^{13}-A^{14}-A^{15}-A^{16}-A^{17}-A^{18}-A^{19}-A^{20}-A^{21}-A^{22}-A^{23}-A^{24}-A^{25}-A^{26}-A^{27} A^{28}-A^{29}-A^{30}-A^{31}-A^{32}-A^{33}-A^{34}-A^{35}-A^{36}-A^{37}-A^{38}-A^{39}-R^{1}$  (SEO ID NO:412),

(I)

## wherein

A<sup>7</sup> is L-His, Ura, Paa, Pta, Amp, Tma-His, des-amino-His, or deleted;

A<sup>8</sup> is [[Ala,]] D-Ala, Aib, Acc, N-Me-Ala, N-Me-D-Ala or N-Me-Gly;

A<sup>9</sup> is Glu, N-Me-Glu, N-Me-Asp or Asp;

 $A^{10}$  is Gly, Acc,  $\beta$ -Ala or Aib;

A<sup>11</sup> is Thr or Ser;

A<sup>12</sup> is Phe, Acc, Aic, Aib, 3-Pal, 4- Pal, β-Nal, Cha, Trp or X<sup>1</sup>-Phe;

A<sup>13</sup> is Thr or Ser;

A<sup>14</sup> is Ser or Aib;

A<sup>15</sup> is Asp or Glu;

A<sup>16</sup> is Val, Acc, Aib, Leu, Ile, Tle, Nle, Abu, Ala or Cha;

A<sup>17</sup> is Ser or Thr:

A<sup>18</sup> is Ser or Thr;

A<sup>19</sup> is Tyr, Cha, Phe, 3-Pal, 4-Pal, Acc, β-Nal or X<sup>1</sup>-Phe;

A<sup>20</sup> is Leu, Acc, Aib, Nle, Ile, Cha, Tle, Val, Phe or X<sup>1</sup>-Phe;

A<sup>21</sup> is Glu or Asp;

 $A^{22}$  is Gly, Acc,  $\beta$ -Ala, Glu or Aib;

A<sup>23</sup> is Gln, Asp, Asn or Glu;

A<sup>24</sup> is Ala, Aib, Val, Abu, Tle or Acc;

A<sup>25</sup> is Ala, Aib, Val, Abu, Tle, Acc, Lys, Arg, hArg, Orn, HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sup>10</sup>-R<sup>11</sup>))-C(O) or NH-CH((CH<sub>2</sub>)<sub>e</sub>- $X^3$ )-C(O);

A<sup>26</sup> is Lys, Arg, hArg, Orn, HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sup>10</sup>-R<sup>11</sup>))-C(O) or NH-CH((CH<sub>2</sub>)<sub>e</sub>-X<sup>3</sup>)-C(O); A<sup>27</sup> is Glu Asp, Leu, Aib or Lys;

Inventor Serial No.

Dong 10/629,261 07/28/2003

Filed Page

3

A<sup>28</sup> is Phe, Pal, β- Nal, X<sup>1</sup>-Phe, Aic, Acc, Aib, Cha or Trp;

A<sup>29</sup> is Ile, Acc, Aib, Leu, Nle, Cha, Tle, Val, Abu, Ala or Phe;

A<sup>30</sup> is Ala, Aib or Acc;

 $A^{31}$  is Trp,  $\beta$ -Nal, 3-Pal, 4-Pal, Phe, Acc, Aib or Cha;

A<sup>32</sup> is Leu, Acc, Aib, Nle, Ile, Cha, Tle, Phe, X<sup>1</sup>-Phe or Ala;

A<sup>33</sup> is Val, Acc, Aib, Leu, Ile, Tle, Nle, Cha, Ala, Phe, Abu, Lys or X<sup>1</sup>-Phe;

A<sup>34</sup> is Lys, Arg, hArg, Orn, HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sup>10</sup>-R<sup>11</sup>))-C(O) or NH-CH((CH<sub>2</sub>)<sub>e</sub>-X<sup>3</sup>)-C(O);

A<sup>35</sup> is [[Gly,]] β-Ala, D-Ala, Gaba, Ava, NH-(CH<sub>2</sub>)<sub>m</sub>-C(O), Aib, Acc or a D-amino acid;

 $A^{36}$  is L-or D-Arg, D-or L-Lys, D-or L-hArg, D-or L-Orn, HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sup>10</sup>-R<sup>11</sup>))-C(O), NH-CH((CH<sub>2</sub>)<sub>e</sub>-X<sup>3</sup>)-C(O) or deleted;

A<sup>37</sup> is Gly, β-Ala, Gaba, Ava, Aib, Acc, Ado, Arg, Asp, Aun, Aec, NH-(CH<sub>2</sub>)<sub>m</sub>-C(O), HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sup>10</sup>-R<sup>11</sup>))-C(O), a D-amino acid, or deleted;

 $A^{38}$  is D-or L-Lys, D-or L-Arg, D-or L-hArg, D-or L-Orn, HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sup>10</sup>-R<sup>11</sup>))-C(O), NH-CH((CH<sub>2</sub>)<sub>e</sub>-X<sup>3</sup>)-C(O), Ava, Ado, Aec or deleted;

A<sup>39</sup> is D-or L-Lys, D-or L-Arg, HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sup>10</sup>-R<sup>11</sup>))-C(O), Ava, Ado, or Aec;

X<sup>1</sup> for each occurrence is independently selected from the group consisting of (C<sub>1</sub>-C<sub>6</sub>)alkyl, OH and halo;

R<sup>1</sup> is OH, NH<sub>2</sub>, (C<sub>1</sub>-C<sub>30</sub>) alkoxy, or NH-X<sup>2</sup>-CH<sub>2</sub>-Z<sup>0</sup>, wherein X<sup>2</sup> is a (C<sub>1</sub>-C<sub>12</sub>) hydrocarbon moiety, and Z<sup>0</sup> is H, OH, CO<sub>2</sub>H or CONH<sub>2</sub>;

 $X^3$  is

or -C(O)-NHR<sup>12</sup>, wherein  $X^4$  is, independently for each occurrence, -C(O)-, -NH-C(O)- or -CH<sub>2</sub>-, and wherein f is , independently for each occurrence, an integer from 1 to 29 inclusive; each of  $R^2$  and  $R^3$  is, independently for each occurrence, H;

e is, independently for each occurrence, an integer from 1 to 4 inclusive;

Page : 4

m is, independently for each occurrence, an integer from 5 to 24 inclusive; n is, independently for each occurrence, an integer from 1 to 5, inclusive; each of  $R^{10}$  and  $R^{11}$  is, independently for each occurrence, H,  $(C_1-C_{30})$  alkyl,  $(C_1-C_{30})$  alkylsulfonyl,  $-C((NH)(NH_2))$  or

-C(O)-CH<sub>2</sub>-N-
$$(CH_2)_f$$
-CH<sub>3</sub>; and

 $R^{12}$  and  $R^{13}$  each is, independently for each occurrence,  $(C_1-C_{30})$  alkyl; provided that:

- (i) when A<sup>7</sup> is Ura, Paa or Pta, then R<sup>2</sup> and R<sup>3</sup> are deleted;
- (ii) when  $R^{10}$  is  $(C_1-C_{30})$ acyl,  $(C_1-C_{30})$ alkylsulfonyl,  $-C((NH)(NH_2))$  or

-C(O)-CH<sub>2</sub>—N—(CH<sub>2</sub>)<sub>f</sub>-CH<sub>3</sub>, then 
$$R^{11}$$
 is H or (C<sub>1</sub>-C<sub>30</sub>)alkyl;

- (iii) at least one amino acid of a compound of formula (I) is not the same as the native sequence of hGLP-1(7-36, -34, -35, -37 or -38)NH<sub>2</sub> or hGLP-1(7-36, -34, -35, -37 or -38)OH;
- (iv) a compound of formula (I) is not an analogue of hGLP-1(7-36, -37 or -38)NH<sub>2</sub> or hGLP-1(7-36, -37 or -38)OH wherein a single position has been substituted by Ala;
- (v) a compound of formula (I) is not (Arg<sup>26,34</sup>, Lys<sup>38</sup>)hGLP-1(7-38)-E, (Lys<sup>26</sup>(N<sup>ε</sup>-alkanoyl))hGLP-1(7-36, -37 or -38)-E, (Lys<sup>34</sup>(N<sup>ε</sup>-alkanoyl))hGLP-1(7-36, -37 or -38)-E, (Lys<sup>26,34</sup>-bis(N<sup>ε</sup>-alkanoyl))hGLP-1(7-36, -37 or -38)-E, (Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-alkanoyl))hGLP-1(8-36, -37 or -38)-E, (Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-alkanoyl))hGLP-1(7-36, -37 or -38)-E or (Arg<sup>26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-alkanoyl))hGLP-1(7-38)-E, wherein E is -OH or -NH<sub>2</sub>;
- (vi) a compound of formula (I) is not ( $Z^1$ )-hGLP-1(7-36, -37 or -38)-OH, ( $Z^1$ )-hGLP-1(7-36, -37 or -38)-NH<sub>2</sub>, wherein  $Z^1$  is selected from the group consisting of:

(c) at least one of (Aib<sup>8</sup>), (D-Ala<sup>8</sup>) and (Asp<sup>9</sup>); and

Inventor Serial No.

Dong

Filed

10/629,261 07/28/2003

<u>Page</u>

5

(d)  $(Tyr^{7});$ 

- (vii) a compound of formula (I) is not a combination of any two of the substitutions listed in groups (vi)(a) to (vi)(d); and
- (viii) a compound of formula (I) is not (N-Me-Ala<sup>8</sup>)hGLP-1(8-36 or -37), (Glu<sup>15</sup>)hGLP-1(7-36 or -37), (Asp<sup>21</sup>)hGLP-1(7-36 or -37), (Phe<sup>31</sup>)hGLP-1(7-36 or -37); or a pharmaceutically acceptable salt thereof.
- 2 (original): A compound according to claim 1, wherein A<sup>11</sup> is Thr; A<sup>13</sup> is Thr; A<sup>15</sup> is Asp; A<sup>17</sup> is Ser; A<sup>18</sup> is Ser; A<sup>21</sup> is Glu; A<sup>23</sup> is Gln or Glu; A<sup>27</sup> is Glu; A<sup>31</sup> is Trp; or a pharmaceutically acceptable salt thereof.
- 3 (original): A compound according to claim 2, wherein A<sup>9</sup> is Glu, N-Me-Glu or N-Me-Asp; A<sup>12</sup> is Phe, Acc or Aic; A<sup>16</sup> is Val, Acc or Aib; A<sup>19</sup> is Tyr; A<sup>20</sup> is Leu, Acc or Cha; A<sup>24</sup> is Ala, Aib or Acc; A<sup>25</sup> is Ala, Aib, Acc, Lys, Arg, hArg, Orn, HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sup>10</sup>R<sup>11</sup>))-C(O) or HN-CH((CH<sub>2</sub>)<sub>e</sub>-X<sup>3</sup>)-C(O); A<sup>28</sup> is Phe; A<sup>29</sup> is Ile or Acc; A<sup>30</sup> is Ala or Aib; A<sup>32</sup> is Leu, Acc or Cha; and A<sup>33</sup> is Val or Acc; or a pharmaceutically acceptable salt thereof.
- 4 (currently amended): A compound according to claim 3, wherein  $A^8$  is [[Ala,]] D-Ala, Aib, A6c, A5c, N-Me-Ala, N-Me-D-Ala or N-Me-Gly;  $A^{10}$  is Gly;  $A^{12}$  is Phe, A6c or A5c;  $A^{16}$  is Val, A6c or A5c;  $A^{20}$  is Leu, A6c, A5c or Cha;  $A^{22}$  is Gly,  $\beta$ -Ala or Aib;  $A^{24}$  is Ala or Aib;  $A^{29}$  is Ile, A6c or A5c;  $A^{32}$  is Leu, A6c, A5c or Cha;  $A^{33}$  is Val, A6c or A5c;  $A^{35}$  is Aib,  $\beta$ -Ala, Ado, A6c, A5c or Gly; and  $A^{37}$  is Gly, Aib,  $\beta$ -Ala, Ado, D-Ala or deleted; or a pharmaceutically acceptable salt thereof.
- 5 (original): A compound according to claim 4 or a pharmaceutically acceptable salt thereof, wherein  $X^4$  for each occurrence is -C(O)-; e for each occurrence is independently 1 or 2; and  $R^1$  is OH or NH<sub>2</sub>.
- 6 (withdrawn) A compound according to claim 5 or a pharmaceutically acceptable salt thereof, wherein R<sup>2</sup> is H and R<sup>3</sup> is (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>2</sub>-C<sub>30</sub>)alkenyl, (C<sub>1</sub>-C<sub>30</sub>)acyl,

Inventor Serial No. Dong 10/629,261

Filed

07/28/2003

Page

ť

(C<sub>1</sub>-C<sub>30</sub>)alkylsulfonyl,

7 (original): A compound according to claim 5 or a pharmaceutically acceptable salt thereof, wherein  $R^{10}$  is  $(C_1-C_{30})$ acyl,  $(C_1-C_{30})$ alkylsulfonyl or

-C(O)-CH<sub>2</sub>—N—(CH<sub>2</sub>)<sub>f</sub>-CH<sub>3</sub>, and 
$$\mathbb{R}^{11}$$
 is H.

8 (original): A compound according to claim 7 or a pharmaceutically acceptable salt thereof, wherein  $R^{10}$  is  $(C_4-C_{20})$  acyl,  $(C_4-C_{20})$  alkylsulfonyl or

9 (previously presented): A compound according to claim 1 wherein said compound is:

(Aib<sup>8</sup>,  $\beta$ -Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:5),

(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:6),

(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:7),

(Aib<sup>8,35,37</sup>, Arg<sup>26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:8),

(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:9),

(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-dodecanesulfonyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:10),

(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup> $\epsilon$ </sup>-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:11),

(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Asp<sup>36</sup>(1-(4-tetradecyl-piperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:12), (Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Asp<sup>36</sup>(1-tetradecylamino))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:13),

Inventor Serial No. Dong 10/629,261

Serial I

07/28/2003

Page

7

(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup> $\epsilon$ </sup>-tetradecanoyl),  $\beta$ -Ala<sup>37</sup>)hGLP-1(7-37)-OH (SEQ ID NO:14) or (Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup> $\epsilon$ </sup>-tetradecanoyl))hGLP-1(7-36)-OH (SEQ ID NO:15), or a pharmaceutically acceptable salt thereof.

10 (previously presented): A compound according to claim 9 wherein said compound is (Aib<sup>8</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:5), (Aib<sup>8,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:7), (Aib<sup>8,35,37</sup>, Arg<sup>26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:8), (Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:9), or (Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl), β-Ala<sup>37</sup>)hGLP-1(7-37)-OH (SEQ ID NO:14), or a pharmaceutically acceptable salt thereof.

11 (currently amended): A pharmaceutical composition comprising an effective amount of a compound according to claim 1 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier or diluent.

12 (withdrawn): A method of eliciting an agonist effect from a GLP-1 receptor in a subject in need thereof which comprises administering to said subject an effective amount of a compound according to claim 1 or a pharmaceutically acceptable salt thereof.

13 (withdrawn): A method for treating a disease selected from the group consisting of Type I diabetes, Type II diabetes, obesity, glucagonomas, secretory disorders of the airway, metabolic disorder, arthritis, osteoporosis, central nervous system disease, restenosis and neurodegenerative disease, in a subject in need thereof which comprises administering to said subject an effective amount of a compound according to claim 1 or a pharmaceutically acceptable salt thereof.

14 (withdrawn): A method according to claim 13 wherein said disease is Type I

Page :

diabetes or Type II diabetes.

15 (currently amended): A compound according to claim 1 wherein said compound is:

(Aib<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:71);

(β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:72);

(Aib<sup>8</sup>, A6c<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:77);

(Aib<sup>8</sup>, A5c<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:78);

(Aib<sup>8</sup>, D-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:79);

(Aib<sup>8</sup>, 35, A6c<sup>32</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:16);

(Aib<sup>8,35</sup>, A5c<sup>32</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:80);

(Aib<sup>8,35</sup>, Glu<sup>23</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:17);

(Aib 8,24,35)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:18);

(Aib 8,30,35)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:81);

(Aib 8,25,35)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:82);

(Aib<sup>8,35</sup>, A6c<sup>16,20</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:83);

(Aib<sup>8,35</sup>, A6c<sup>16,29,32</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:84);

(Aib<sup>8,35</sup>, A6c<sup>20,32</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:85);

(Aib<sup>8,35</sup>, A6c<sup>20</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:86);

(Aib<sup>8,35</sup>, Lys<sup>25</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:87);

(Aib<sup>8,24,35</sup>, A6c<sup>20</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:88);

(Aib<sup>8,35</sup>, A6c<sup>29,32</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:89);

(Aib<sup>8,24,35</sup>, A6c<sup>29,32</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:90);

(Aib<sup>8,35</sup>, A6c<sup>12</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:91);

(Aib<sup>8,35</sup>, Cha<sup>20</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:92);

(Aib<sup>8,35</sup>, A6c<sup>33</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:93);

(Aib<sup>8,35</sup>, A6c<sup>20,32</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:85);

(Aib<sup>8</sup>, A6c<sup>16,20</sup>,  $\beta$ -Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:94);

(Aib<sup>8,35</sup>,  $\beta$ -Ala<sup>22</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:95);

(Aib<sup>8,22,35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:96);

Page:

```
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, A6c<sup>32</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:19);
 (Aib<sup>8,24,35</sup>, Glu<sup>23</sup>, A6c<sup>32</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:97);
 (Aib<sup>8,24,25,35</sup>, Glu<sup>23</sup>, A6c<sup>32</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:98);
 (Aib<sup>8,24,25,35</sup>, A6c<sup>16,20,32</sup>, Glu<sup>23</sup>,)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:99);
 (Aib<sup>8</sup>, A6c<sup>32</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:100);
 (Aib<sup>8</sup>, A5c<sup>32</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:101);
 (Aib<sup>8</sup>, Glu<sup>23</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:20);
 (Aib<sup>8,24</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:102);
 (Aib<sup>8,30</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:103);
 (Aib<sup>8,25</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:104);
 (Aib<sup>8</sup>, A6c<sup>16,20</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:94);
(Aib<sup>8</sup>, A6c<sup>16,29,32</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:105);
(Aib<sup>8</sup>, A6c<sup>20,32</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:106);
(Aib<sup>8</sup>, A6c<sup>20</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:107);
(Aib<sup>8</sup>, Lys<sup>25</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:108);
(Aib<sup>8,24</sup>, A6c<sup>20</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:109);
(Aib<sup>8</sup>, A6c<sup>29,32</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:110);
(Aib<sup>8,24</sup>, A6c<sup>29,32</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:111);
(Aib<sup>8</sup>, A6c<sup>12</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:112);
(Aib<sup>8</sup>, Cha<sup>20</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:113);
(Aib<sup>8</sup>, A6c<sup>33</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:114);
(Aib<sup>8</sup>, A6c<sup>20,32</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:106);
(Aib<sup>8</sup>, \beta-Ala<sup>22,35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:115);
(Aib<sup>8,22</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:116);
(Aib<sup>8</sup>, Glu<sup>23</sup>, A6c<sup>32</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:117);
(Aib<sup>8,24</sup>, Glu<sup>23</sup>, A6c<sup>32</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:118);
(Aib<sup>8,24</sup>, Glu<sup>23</sup>, A6c<sup>32</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:119);
(Aib<sup>8,24,25</sup>, Glu<sup>23</sup>, A6c<sup>32</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:120);
```

```
Filed
                                  07/28/2003
Page
(Aib<sup>8,24,25</sup>, A6c<sup>16,20,32</sup>, Glu<sup>23</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:121);
(Aib<sup>8,35</sup>, D-Arg<sup>36</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:122);
(Aib<sup>8,35</sup>, D-Lys<sup>36</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:123);
(Aib<sup>8</sup>, β-Ala<sup>35</sup>, D-Arg<sup>36</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:124);
(Aib<sup>8</sup>, β-Ala<sup>35</sup>, D-Lys<sup>36</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:125);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>,)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:21);
(Aib<sup>8</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:126);
(Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:127);
(Aib<sup>8</sup>, Arg<sup>25,26,34</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:128);
(Aib<sup>8</sup>, Arg<sup>26,34</sup>, \beta-Ala<sup>35</sup>, Lys<sup>36</sup>(N<sup>\epsilon</sup>-tetradecanoyl))hGLP-1(7-36)OH (SEQ ID NO:129);
(Aib^{8,35}, Arg^{26,34}, Lys^{36}(N^{\epsilon}-tetradecanoyl))hGLP-1(7-37)OH (SEQ ID NO:130);
(Aib^{8,35,37}, Arg^{26,34}, Lys^{36}(N^{\epsilon}-tetradecanoyl))hGLP-1(7-37)OH (SEQ ID NO:131);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl), D-Ala<sup>37</sup>)hGLP-1(7-37)OH (SEQ ID NO:132);
(Aib<sup>8,35,37</sup>, Arg<sup>26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-38)OH (SEQ ID NO:133);
(Aib^{8,35}, Arg^{26,34}, β-Ala^{37}, Lys^{38}(N^{\epsilon}-tetradecanoyl))hGLP-1(7-38)OH (SEQ ID NO:134);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-38)OH (SEQ ID NO:135);
(Aib<sup>8</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>\epsilon</sup>-tetradecanoyl), \beta-Ala<sup>37</sup>)hGLP-1(7-37)OH (SEQ ID NO:136);
(Aib<sup>8,37</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N^{\epsilon}-tetradecanoyl))hGLP-1(7-37)OH (SEQ ID NO:137);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Ado<sup>37</sup>)hGLP-1(7-37)OH (SEQ ID NO:138);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Ado<sup>37</sup>)hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:139);
(Aib<sup>8</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl), D-Ala<sup>37</sup>)hGLP-1(7-37)OH (SEQ ID NO 140);
(Aib^{8,37}, Arg^{26,34}, Lys^{38}(N^{\epsilon}-tetradecanoyl))hGLP-1(7-38)OH (SEQ ID NO:141);
(Aib<sup>8</sup>, Arg<sup>26,34</sup>, \beta-Ala<sup>37</sup>, Lys<sup>38</sup>(N<sup>\epsilon</sup>-tetradecanoyl))hGLP-1(7-38)OH (SEQ ID NO:142);
(Aib^{8,35}, Lys^{26}(N^{\epsilon}-octanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:143);
(Aib<sup>8,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:144);
(Aib<sup>8,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:145);
(Aib<sup>8</sup>, Lys<sup>26</sup>(N<sup>\epsilon</sup>-octanoyl), \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:146);
(Aib<sup>8</sup>, Lys<sup>26</sup>(N<sup>\epsilon</sup>-tetradecanoyl), \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:147);
(Aib<sup>8</sup>, Lys<sup>26</sup>(N<sup>\epsilon</sup>-hexadecanoyl), \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:148);
```

Inventor

Serial No.

Dong

10/629,261

```
Serial No.
                                      10/629,261
 Filed
                                      07/28/2003
 Page
 (Aib<sup>8,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-octanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:149);
 (Aib<sup>8,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-tetradecanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:150);
(Aib<sup>8,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-hexadecanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:151);
(Aib<sup>8,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-decanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:152);
 (Aib<sup>8,35</sup>, Lys<sup>25</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-octanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:153);
(Aib<sup>8,35</sup>, Lys<sup>25</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-tetradecanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:154);
(Aib<sup>8,35</sup>, Lys<sup>25</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-hexadecanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:155);
(Aib<sup>8,35</sup>, Arg<sup>25,34</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:156);
(Aib<sup>8,35</sup>, Arg<sup>25,34</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:157);
(Aib<sup>8,35</sup>, Arg<sup>25,34</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:158);
(Aib<sup>8,35</sup>, Arg<sup>25,34</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:159);
(Aib<sup>8</sup>, Lys<sup>26</sup>(N<sup>\epsilon</sup>-octanoyl), Arg<sup>34</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:160);
(Aib<sup>8</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-tetradecanoyl), Arg<sup>34</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:161);
(Aib<sup>8</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-hexadecanoyl), Arg<sup>34</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:162);
(Aib<sup>8</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-decanoyl), Arg<sup>34</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:163);
(Aib<sup>8,35</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:164);
(Aib<sup>8,35</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:165);
(Aib<sup>8,35</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:166);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:167);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:168);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:169);
(Aib<sup>8,35</sup>, Arg<sup>25,26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:170);
(Aib<sup>8,35</sup>, Arg<sup>25,26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:171);
(Aib<sup>8,35</sup>, Arg<sup>25,26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:172);
(Aib<sup>8,35</sup>, Arg<sup>25,26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:173);
(Aib<sup>8,35</sup>, Lys<sup>25</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:174);
(Aib<sup>8,35</sup>, Lys<sup>25</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:175);
(Aib<sup>8,35</sup>, Lys<sup>25</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:176);
(Aib<sup>8,35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:177);
(Aib<sup>8,35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:178);
```

Inventor

Dong

Page

(Aib<sup>8,35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:179);

 $(Aib^{8,35}, Arg^{26}, Lys^{36}(N^{\epsilon}-octanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:180);$ 

(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:181);

 $(Aib^{8,35}, Arg^{26}, Lys^{36}(N^{\epsilon}-hexadecanoyl))hGLP-1(7-36)NH_2$  (SEQ ID NO:182);

 $(Aib^{8,35}, Arg^{26,34}, Lys^{36}(N^{\epsilon}-octanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:183);$ 

(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:184);

(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:185);

(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:186);

(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:187);

(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:188);

(Aib<sup>8,35,37</sup>, Arg<sup>25,26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:189);

 $(Aib^{8,35,37}, Arg^{25,26,34}, Lys^{38}(N^{\epsilon}-decanoyl))hGLP-1(7-38)NH_2(SEQ ID NO:190);$ 

(Aib<sup>8,35,37</sup>, Arg<sup>25,26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:191);

(Aib<sup>8,35,37</sup>, Arg<sup>25,26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:192);

(Aib<sup>8,35,37</sup>, Arg<sup>26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:193);

(Aib<sup>8,35,37</sup>, Arg<sup>26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:194);

(Aib<sup>8,35,37</sup>, Arg<sup>26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:195);

 $(Aib^{8,35,37}, Arg^{25,26,34}, Lys^{38}(N^{\epsilon}-octanoyl))hGLP-1(7-38)NH_2$  (SEQ ID NO:189);

(Aib<sup>8,35,37</sup>, Arg<sup>25,26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:190);

 $(Aib^{8,35,37}, Arg2^{5,26,34}, Lys^{38}(N^{\epsilon}-tetradecanoyl))hGLP-1(7-38)NH_{2}(SEQ ID NO:191);$ 

(Aib<sup>8,35,37</sup>, Arg<sup>25,26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:192);

(Aib<sup>8,35</sup>, Lys<sup>25</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:196);

(Aib<sup>8,35</sup>, Lys<sup>25</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:197);

(Aib<sup>8,35</sup>, Lys<sup>25</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:198);

(Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:199);

(Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:200);

 $(Aib^{8,35}, Arg^{25,26,34}, Lys^{36}(N^{\epsilon}-hexadecanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:201);$ 

(Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:202);

 $(Aib^8, Lys^{34}(N^ε-octanoyl), β-Ala^{35})hGLP-1(7-36)NH_2$  (SEQ ID NO:203);

(Aib<sup>8</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-tetradecanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:204);

Page:

```
(Aib<sup>8</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-hexadecanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:205);
 (Aib<sup>8</sup>, A6c<sup>32</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:206);
 (Aib<sup>8</sup>, Glu<sup>23</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:207);
 (Aib<sup>8</sup>, Glu<sup>23</sup>, A6c<sup>32</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:208);
 (Aib<sup>8</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:209);
 (Aib^8, Arg^{26}, Lys^{34}(N^ε-tetradecanoyl), β-Ala^{35})hGLP-1(7-36)NH_2 (SEQ ID NO:210);
 (Aib<sup>8</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-hexadecanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:211);
 (Aib<sup>8</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-decanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:212);
 (Aib<sup>8</sup>, Arg<sup>25,26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:213);
 (Aib<sup>8</sup>, Arg<sup>25,26</sup>, Lys<sup>34</sup>(N<sup>\epsilon</sup>-tetradecanoyl), \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:214);
 (Aib<sup>8</sup>, Arg<sup>25,26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-hexadecanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:215);
(Aib<sup>8</sup>, Arg<sup>25,26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-decanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:216);
(Aib<sup>8</sup>, Lys<sup>25</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:217);
(Aib<sup>8</sup>, Lys<sup>25</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-tetradecanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:218);
(Aib<sup>8</sup>, Lys<sup>25</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-hexadecanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:219);
(Aib<sup>8</sup>, β-Ala<sup>35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:220);
(Aib<sup>8</sup>, β-Ala<sup>35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:221);
(Aib<sup>8</sup>, β-Ala<sup>35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:222);
(Aib<sup>8</sup>, Arg<sup>26</sup>, β-Ala<sup>35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:223);
(Aib<sup>8</sup>, Arg<sup>26</sup>, β-Ala<sup>35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:224);
(Aib^8, Arg^{26}, β-Ala^{35}, Lys^{36}(N^ε-hexadecanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:225);
(Aib<sup>8</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:226);
(Aib^8, Arg^{26,34}, β-Ala^{35}, Lys^{36}(N^ε-tetradecanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:227);
(Aib^8, Arg^{26,34}, β-Ala^{35}, Lys^{36}(N^ε-hexadecanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:228);
(Aib<sup>8</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:229);
(Aib<sup>8</sup>, Lys<sup>25</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:230);
(Aib<sup>8</sup>, Lys<sup>25</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl), β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:231);
(Aib<sup>8</sup>, Lys<sup>25</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:232);
```

```
(Aib^8, Arg^{25,26,34}, \beta-Ala^{35}, Lys^{36}(N^\epsilon-octanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:233);
(Aib^8, Arg^{25,26,34}, β-Ala^{35}, Lys^{36}(N^ε-tetradecanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:234);
(Aib<sup>8</sup>, Arg<sup>25,26,34</sup>, β-Ala<sup>35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:235);
(Aib^8, Arg^{25,26,34}, β-Ala^{35}, Lys^{36}(N^ε-decanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:236);
(Aib^{8,35}, Lys^{26}(N^{\epsilon}-octanoyl), A6c^{32}, Arg^{34})hGLP-1(7-36)NH_2 (SEQ ID NO:237);
(Aib<sup>8,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-tetradecanoyl), A6c<sup>32</sup>, Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:238);
(Aib<sup>8,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-hexadecanoyl), A6c<sup>32</sup>, Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:239);
(Aib<sup>8,35</sup>, A6c<sup>32</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:240);
(Aib<sup>8,35</sup>, A6c<sup>32</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:241);
(Aib^{8,35}, A6c^{32}, Lys^{34}(N^{\epsilon}-hexadecanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:242);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, A6c<sup>32</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:243);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, A6c<sup>32</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:244);
(Aib<sup>8,35</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:245);
(Aib<sup>8,35</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:246);
(Aib<sup>8,35</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:247);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:248);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:249);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:250);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:251);
(Aib^{8,35}, Arg^{26,34}, A6c^{32}, Lys^{36}(N^{\epsilon}-decanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:252);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:253);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:254);
(Aib<sup>8,24,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-octanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:255);
(Aib<sup>8,24,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-tetradecanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:256);
(Aib<sup>8,24,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-hexadecanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:257);
(Aib<sup>8,24,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:258);
(Aib<sup>8,24,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:259);
(Aib<sup>8,24,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:260);
(Aib<sup>8,24,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:261);
(Aib^{8,24,35}, Arg^{26,34}, Lys^{36}(N^{\epsilon}-tetradecanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:262);
```

```
(Aib<sup>8,24,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:263);
 (Aib<sup>8,24,35</sup>, Glu<sup>23</sup>, A6c<sup>32</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:264);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-octanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:265);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-tetradecanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:266);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-hexadecanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:267);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:268);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, A6c<sup>32</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:269);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:270);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:271);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:272);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:273);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:274);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:275);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:276);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:277);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:278);
(Aib<sup>8,30,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-octanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:279);
(Aib^{8,30,35}, Lys^{26}(N^{\epsilon}-tetradecanoyl), Arg^{34})hGLP-1(7-36)NH_2 (SEQ ID NO:280);
(Aib<sup>8,30,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-hexadecanoyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:281);
(Aib<sup>8,30,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:282);
(Aib<sup>8,30,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:283);
(Aib<sup>8,30,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:284);
(Aib<sup>8,30,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:285);
(Aib<sup>8,30,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:286);
(Aib^{8,30,35}, Arg^{26,34}, Lys^{36}(N^{\epsilon}-hexadecanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:287);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:288);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:289);
(Aib^{8,35}, Glu^{23}, A6c^{32}, Lys^{36}(N^{\epsilon}-hexadecanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:290);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Arg<sup>26,34</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:291);
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Arg<sup>26,34</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:292);
```

Page : 16

```
(Aib<sup>8,35</sup>, Glu<sup>23</sup>, Arg<sup>26,34</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:293);
 (Aib<sup>8,24,35</sup>, Glu<sup>23</sup>, Arg<sup>26,34</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:294);
 (Aib<sup>8,24,35</sup>, Glu<sup>23</sup>, Arg<sup>26,34</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:295);
(Aib<sup>8,24,35</sup>, Glu<sup>23</sup>, Arg<sup>26,34</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:296);
(Aib^{8,24,30,35}, Glu^{23}, Arg^{26,34}, A6c^{32}, Lys^{36}(N^{\epsilon}-octanoyl))hGLP-1(7-36)NH_2 (SEQ ID NO:297);
(Aib<sup>8,24,30,35</sup>, Glu<sup>23</sup>, Arg<sup>26,34</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:298);
(Aib<sup>8,24,30,35</sup>, Glu<sup>23</sup>, Arg<sup>26,34</sup>, A6c<sup>32</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:299);
(Aib<sup>8,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-octanesulfonyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:317);
(Aib<sup>8,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-dodecanesulfonyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:318);
(Aib<sup>8,35</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-hexadecanesulfonyl), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:319);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-octanesulfonyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:320);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-dodecanesulfonyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:321);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-hexadecanesulfonyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:322);
(Aib^{8,35}, Arg^{26,34}, Lys^{36}(N^{\epsilon}-octanesulfonyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:323);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-hexadecanesulfonyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:324);
(Aib<sup>8,35</sup>, Asp<sup>26</sup>(1-(4-decylpiperazine)), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:325);
(Aib<sup>8,35</sup>, Asp<sup>26</sup>(1-(4-dodecylpiperazine)), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:326);
(Aib<sup>8,35</sup>, Asp<sup>26</sup>(1-(4-tetradecylpiperazine)), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:327);
(Aib<sup>8,35</sup>, Asp<sup>26</sup>(1-(4-hexadecylpiperazine)), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:328);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Asp<sup>34</sup>(1-(4-decylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:329);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Asp<sup>34</sup>(1-(4-dodecylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:330);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Asp<sup>34</sup>(1-(4-tetradecylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:331);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Asp<sup>34</sup>(1-(4-hexadecylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:332);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Asp<sup>36</sup>(1-(4-decylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:333);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Asp<sup>36</sup>(1-(4-dodecylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:334);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Asp<sup>36</sup>(1-(4-hexadecylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:335);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Asp<sup>38</sup>(1-(4-decylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:336);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Asp<sup>38</sup>(1-(4-dodecylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:337);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Asp<sup>38</sup>(1-(4-tetradecylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:338);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Asp<sup>38</sup>(1-(4-hexadecylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:339);
```

<u>Page</u> : 1

```
(Aib<sup>8,35,37</sup>, Arg<sup>26,34</sup>, Asp<sup>38</sup>(1-(4-decylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:340);
 (Aib<sup>8,35,37</sup>, Arg<sup>26,34</sup>, Asp<sup>38</sup>(1-(4-dodecylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:341);
 (Aib<sup>8,35,37</sup>, Arg<sup>26,34</sup>, Asp<sup>38</sup>(1-(4-tetradecylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:342);
 (Aib<sup>8,35,37</sup>, Arg<sup>26,34</sup>, Asp<sup>38</sup>(1-(4-hexadecylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:343);
 (Aib<sup>8,35</sup>, Arg<sup>25,34</sup>, Asp<sup>26</sup>(1-(4-decylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:344);
 (Aib<sup>8,35</sup>, Arg<sup>25,34</sup>, Asp<sup>26</sup>(1-(4-dodecylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:345);
 (Aib<sup>8,35</sup>, Arg<sup>25,34</sup>, Asp<sup>26</sup>(1-(4-tetradecylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:346);
 (Aib<sup>8,35</sup>, Arg<sup>25,34</sup>, Asp<sup>26</sup>(1-(4-hexadecylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:347);
 (Aib<sup>8,35</sup>, Arg<sup>25,26</sup>, Asp<sup>34</sup>(1-(4-decylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:348);
 (Aib<sup>8,35</sup>, Arg<sup>25,26</sup>, Asp<sup>34</sup>(1-(4-dodecylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:349);
(Aib<sup>8,35</sup>, Arg<sup>25,26</sup>, Asp<sup>34</sup>(1-(4-tetradecylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:350);
(Aib<sup>8,35</sup>, Arg<sup>25,26</sup>, Asp<sup>34</sup>(1-(4-hexadecylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:351);
(Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>, Asp<sup>36</sup>(1-(4-decylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:352);
(Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>, Asp<sup>36</sup>(1-(4-dodecylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:353);
(Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>, Asp<sup>36</sup>(1-(4-tetradecylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:354);
(Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>, Asp<sup>36</sup>(1-(4-hexadecylpiperazine)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:355);
(Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>, Asp<sup>38</sup>(1-(4-decylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:356);
(Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>, Asp<sup>38</sup>(1-(4-dodecylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:357);
(Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>, Asp<sup>38</sup>(1-(4-tetradecylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:358);
(Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>, Asp<sup>38</sup>(1-(4-hexadecylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:359);
(Aib<sup>8,35,37</sup>, Arg<sup>25,26,34</sup>, Asp<sup>38</sup>(1-(4-decylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:360);
(Aib<sup>8,35,37</sup>, Arg<sup>25,26,34</sup>, Asp<sup>38</sup>(1-(4-dodecylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:361);
(Aib<sup>8,35,37</sup>, Arg<sup>25,26,34</sup>, Asp<sup>38</sup>(1-(4-tetradecylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:362);
(Aib<sup>8,35,37</sup>, Arg<sup>25,26,34</sup>, Asp<sup>38</sup>(1-(4-hexadecylpiperazine)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:363);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Glu<sup>36</sup>(1-dodecylamino))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:364);
(Aib<sup>8,35</sup>, Glu<sup>26</sup>(1-dodecylamino), Arg<sup>34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:365);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Glu<sup>34</sup>(1-dodecylamino))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:366);
(Aib<sup>8,35,37</sup>, Arg<sup>26,34</sup>, Glu<sup>38</sup>(1-dodecylamino))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:367);
(Aib<sup>8,35</sup>, Arg<sup>34</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:368);
```

```
Inventor
                               Dong
Serial No.
                               10/629,261
Filed
                               07/28/2003
 <u>Page</u>
(Aib<sup>8,35</sup>, Arg<sup>34</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:369);
(Aib<sup>8,35</sup>, Arg<sup>34</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:370;
(Aib<sup>8,35</sup>, Arg<sup>34</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:371);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:372);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:373);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:374);
(Aib<sup>8,35</sup>, Arg<sup>26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:375);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:376);
(Aib^{8,35}, Arg^{26,34}, Lys^{36}(N^{\epsilon}-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH_2 (SEQ ID
NO:377);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:378);
(Aib^{8,35}, Arg^{26,34}, Lys^{38}(N^{\epsilon}-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH_2 (SEQ ID)
NO:379);
(Aib^{8,35}, Arg^{26,34}, Lys^{38}(N^{\epsilon}-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID)
NO:380);
(Aib^{8,35}, Arg^{26,34}, Lys^{38}(N^{\epsilon}-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH_2 (SEQ ID))
NO:381);
```

(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:382);

 $(Aib^{8,35,37}, Arg^{26,34}, Lys^{38}(N^{\epsilon}-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH_2 (SEQ ID)$ NO:383);

```
Inventor
                              Dong
Serial No.
                              10/629,261
Filed
                              07/28/2003
Page
(Aib^{8,35,37}, Arg^{26,34}, Lys^{38}(N^{\epsilon}-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH_2 (SEQ ID))
NO:384);
(Aib^{8,35,37}, Arg^{26,34}, Lys^{38}(N^{\epsilon}-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH_2 (SEQ ID))
NO:385);
(Aib^{8,35,37}, Arg^{26,34}, Lys^{38}(N^{\epsilon}-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH_2 (SEQ ID))
NO:386);
(Aib<sup>8,35</sup>, Arg<sup>25,34</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:387);
(Aib^{8,35}, Arg^{25,34}, Lys^{26}(N^{\epsilon}-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID)
NO:388);
(Aib<sup>8,35</sup>, Arg<sup>25,34</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:389);
(Aib<sup>8,35</sup>, Arg<sup>25,34</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:390);
(Aib^{8,35}, Arg^{25,26}, Lys^{34}(N^{\epsilon}-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH_2 (SEQ ID))
NO:391);
(Aib^{8,35}, Arg^{25,26}, Lys^{34}(N^{\epsilon}-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH_2 (SEQ ID
NO:392);
(Aib<sup>8,35</sup>, Arg<sup>25,26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:393);
(Aib<sup>8,35</sup>, Arg<sup>25,26</sup>, Lys<sup>34</sup>(N<sup>ε</sup>-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:394);
(Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
NO:395);
(Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID
```

 $(Aib^{8,35}, Arg^{25,26,34}, Lys^{36}(N^{\epsilon}-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID)$ 

 $(Aib^{8,35}, Arg^{25,26,34}, Lys^{36}(N^{\epsilon}-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH_2 (SEQ ID))$ 

NO:396);

NO:397);

NO:398);

```
Serial No.
                                 10/629,261
                                 07/28/2003
 Filed
 Page
 (Aib^{8,35}, Arg^{25,26,34}, Lys^{38}(N^{\epsilon}-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH_2 (SEQ ID))
 NO:399);
 (Aib^{8,35}, Arg^{25,26,34}, Lys^{38}(N^{\epsilon}-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH_2 (SEQ ID)
 NO:400);
 (Aib<sup>8,35</sup>, Arg<sup>25,26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID
 NO:401);
 (Aib^{8,35}, Arg^{25,26,34}, Lys^{38}(N^{\epsilon}-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH_2 (SEQ ID))
 NO:402);
 (Aib<sup>8,35,37</sup>, Arg<sup>25,26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID
 NO:403);
 (Aib<sup>8,35,37</sup>, Arg<sup>25,26,34</sup>, Lys<sup>38</sup>(N<sup>ε</sup>-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH<sub>2</sub> (SEQ ID
 NO:404);
(Aib^{8,35,37}, Arg^{25,26,34}, Lys^{38}(N^{\epsilon}-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH_2 (SEQ)
ID NO:405);
(Aib^{8,35,37}, Arg^{25,26,34}, Lys^{38}(N^{\epsilon}-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH_2 (SEQ
ID NO:406);
(Aib^{8,35}, Arg^{26,34}, Lys^{36}(N^{\epsilon}-decanoyl))hGLP-1(7-36)OH (SEQ ID NO:407);
(Aib<sup>8,35</sup>, Lys<sup>25</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-36)OH (SEQ ID NO:408);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Ava<sup>37</sup>, Ado<sup>38</sup>)hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:409);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Asp<sup>37</sup>, Ava<sup>38</sup>, Ado<sup>39</sup>)hGLP-1(7-39)NH<sub>2</sub> (SEQ ID NO:27);
(Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Aun<sup>37</sup>)hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:28);
(Aib<sup>8,17,35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:29);
(Aib<sup>8</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>, D-Asp<sup>37</sup>, Ava<sup>38</sup>, Aun<sup>39</sup>)hGLP-1(7-39)NH<sub>2</sub> (SEQ ID NO:30);
(Gly<sup>8</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:31);
(Ser<sup>8</sup>, \beta-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:32);
(Aib<sup>8</sup>, Glu<sup>22,23</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:33);
(Gly<sup>8</sup>, Aib<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:34);
(Aib<sup>8</sup>, Lys<sup>18</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO35);
(Aib<sup>8</sup>, Leu<sup>27</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:36);
```

Inventor

Dong

Serial No. 10/629,261 07/28/2003 Filed Page (Aib<sup>8</sup>, Lys<sup>33</sup>,  $\beta$ -Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:37); (Aib<sup>8</sup>, Lys<sup>18</sup>, Leu<sup>27</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:38); (Aib<sup>8</sup>, D-Arg<sup>36</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:39); (Aib<sup>8</sup>, β-Ala<sup>35</sup>, D-Arg<sup>37</sup>)hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:40); (Aib<sup>8,27</sup>,  $\beta$ -Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:41); (Aib<sup>8,27</sup>, β-Ala<sup>35,37</sup>, Arg<sup>38</sup>)hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:42); (Aib<sup>8,27</sup>,  $\beta$ -Ala<sup>35,37</sup>, Arg<sup>38,39</sup>)hGLP-1(7-39)NH<sub>2</sub> (SEQ ID NO:43); (Aib<sup>8</sup>, Lys<sup>18,27</sup>,  $\beta$ -Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:44); (Aib<sup>8</sup>, Lys<sup>27</sup>,  $\beta$ -Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:45); (Aib<sup>8</sup>,  $\beta$ -Ala<sup>35</sup>, Arg<sup>38</sup>)hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:46); (Aib<sup>8</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:47); (Aib<sup>8</sup>, D-Arg<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:48); (Aib<sup>8</sup>, β-Ala<sup>35</sup>, Arg<sup>37</sup>)hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:49); (Aib<sup>8</sup>, Phe<sup>31</sup>,  $\beta$ -Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:50); (Aib<sup>8,35</sup>, Phe<sup>31</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:51); (Aib<sup>8,35</sup>, Nal<sup>31</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:52); (Aib<sup>8,35</sup>, Nal<sup>28,31</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:53); (Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Nal<sup>31</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:54); (Aib<sup>8,35</sup>, Nal<sup>19,31</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:56); (Aib<sup>8,35</sup>, Nal<sup>12,31</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:57); (Aib<sup>8,35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:58); (Aib<sup>8,35</sup>, Arg<sup>34</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:59); (Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-dodecanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:60); (Aib<sup>8</sup>, β-Ala<sup>35</sup>, Ser<sup>37</sup>(O-decanoyl))hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:61); (Aib<sup>8,27</sup>, β-Ala<sup>35,37</sup>, Arg<sup>38</sup>, Lys<sup>39</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-39)NH<sub>2</sub> (SEQ ID NO:62); (Aib<sup>8</sup>, Arg<sup>26,34</sup>,  $\beta$ -Ala<sup>35</sup>, Lys<sup>37</sup>(N<sup> $\epsilon$ </sup>-octanoyl))hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:63); (Aib<sup>8</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>, Lys<sup>37</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:64); (Aib<sup>8</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>, Lys<sup>37</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:65);

(Aib<sup>8</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>, Lys<sup>37</sup>(N<sup>ε</sup>-dodecanoyl))hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:410); or

Inventor

Dong

Page : 2

(Aib<sup>8</sup>, Arg<sup>26,34</sup>,  $\beta$ -Ala<sup>35</sup>, Lys<sup>37</sup>(N<sup> $\epsilon$ </sup>-dodecanoyl))hGLP-1(8-37)NH<sub>2</sub> (SEQ ID NO:411); or a pharmaceutically acceptable salt thereof.

16 (previously presented): A compound according to claim 15 wherein said compound is: (Aib<sup>8,35</sup>, A6c<sup>32</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:16); (Aib<sup>8,35</sup>, Glu<sup>23</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:17); (Aib 8,24,35)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:18); (Aib<sup>8,35</sup>, Glu<sup>23</sup>, A6c<sup>32</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:19); (Aib<sup>8</sup>, Glu<sup>23</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:20); (Aib<sup>8,35</sup>, Arg<sup>26,34</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:21); (Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:22); (Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Lys<sup>36</sup>(N $^{\epsilon}$ -decanoyl))hGLP-1(7-36)OH (SEQ ID NO:23); (Aib<sup>8,35</sup>, Lys<sup>25</sup>, Arg<sup>26,34</sup>Lys<sup>36</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-36)OH (SEQ ID NO:24); (Aib<sup>8</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-Aec-decanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:25); (Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Ava<sup>37</sup>, Ado<sup>38</sup>)hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:26); (Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Asp<sup>37</sup>, Ava<sup>38</sup>, Ado<sup>39</sup>)hGLP-1(7-39)NH<sub>2</sub> (SEQ ID NO:27); (Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Aun<sup>37</sup>)hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:28); (Aib<sup>8,17,35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:29); (Aib<sup>8</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>, D-Asp<sup>37</sup>, Ava<sup>38</sup>, Aun<sup>39</sup>)hGLP-1(7-39)NH<sub>2</sub> (SEQ ID NO:30); (Gly<sup>8</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:31);(Ser<sup>8</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:32); (Aib<sup>8</sup>, Glu<sup>22,23</sup>,  $\beta$ -Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:33); (Gly<sup>8</sup>, Aib<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:34); (Aib<sup>8</sup>, Lys<sup>18</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO: 35); (Aib<sup>8</sup>, Leu<sup>27</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:36); (Aib<sup>8</sup>, Lys<sup>33</sup>,  $\beta$ -Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:37); (Aib<sup>8</sup>, Lys<sup>18</sup>, Leu<sup>27</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:38); (Aib<sup>8</sup>, D-Arg<sup>36</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:39);

Page (Aib<sup>8</sup>,  $\beta$ -Ala<sup>35</sup>, D-Arg<sup>37</sup>)hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:40); (Aib<sup>8,27</sup>,  $\beta$ -Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:41); (Aib<sup>8,27</sup>, β-Ala<sup>35,37</sup>, Arg<sup>38</sup>)hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:42); (Aib<sup>8,27</sup>, β-Ala<sup>35,37</sup>, Arg<sup>38,39</sup>)hGLP-1(7-39)NH<sub>2</sub> (SEQ ID NO:43); (Aib<sup>8</sup>, Lys<sup>18,27</sup>,  $\beta$ -Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:44); (Aib<sup>8</sup>, Lys<sup>27</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:45); (Aib<sup>8</sup>,  $\beta$ -Ala<sup>35</sup>, Arg<sup>38</sup>)hGLP-1(7-38)NH<sub>2</sub> (SEQ ID NO:46); (Aib<sup>8</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:47); (Aib<sup>8</sup>, D-Arg<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:48); (Aib<sup>8</sup>, β-Ala<sup>35</sup>, Arg<sup>37</sup>)hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:49); (Aib<sup>8</sup>, Phe<sup>31</sup>,  $\beta$ -Ala<sup>35</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:50); (Aib<sup>8,35</sup>, Phe<sup>31</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:51); (Aib<sup>8,35</sup>, Nal<sup>31</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:52); (Aib<sup>8,35</sup>, Nal<sup>28,31</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:53); (Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Nal<sup>31</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:54); (Aib<sup>8,35</sup>, Nal<sup>19,31</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:56); (Aib<sup>8,35</sup>, Nal<sup>12,31</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:57); (Aib<sup>8,35</sup>, Lys<sup>36</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:58); (Aib<sup>8,35</sup>, Arg<sup>34</sup>, Lys<sup>26</sup>(N<sup>ε</sup>-decanoyl))hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:59);  $(Aib^{8,35}, Arg^{26,34}, Lys^{36}(N^{\epsilon}-dodecanoyl))hGLP-1(7-36)NH_2$  (SEQ ID NO:60); (Aib<sup>8</sup>, β-Ala<sup>35</sup>, Ser<sup>37</sup>(O-decanoyl))hGLP-1(7-37)-NH<sub>2</sub> (SEQ ID NO:61); (Aib<sup>8,27</sup>, β-Ala<sup>35,37</sup>, Arg<sup>38</sup>, Lys<sup>39</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-39)NH<sub>2</sub> (SEQ ID NO:62); (Aib<sup>8</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>, Lys<sup>37</sup>(N<sup>ε</sup>-octanoyl))hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:63); (Aib<sup>8</sup>, Arg<sup>26,34</sup>,  $\beta$ -Ala<sup>35</sup>, Lys<sup>37</sup>(N<sup> $\epsilon$ </sup>-decanoyl))hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:64); or (Aib<sup>8</sup>, Arg<sup>26,34</sup>, β-Ala<sup>35</sup>, Lys<sup>37</sup>(N<sup>ε</sup>-tetradecanoyl))hGLP-1(7-37)NH<sub>2</sub> (SEQ ID NO:65); or a pharmaceutically acceptable salt thereof.

Inventor

Filed

Serial No.

Dong

10/629,261

07/28/2003

19 (previously presented): A compound wherein said compound is: (Aib<sup>8,35</sup>, Arg<sup>26,34</sup>, Phe<sup>31</sup>)hGLP-1(7-36)NH<sub>2</sub> (SEQ ID NO:55);

or a pharmaceutically acceptable salt thereof.